This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (withdrawn) A vector for the systemic delivery of a virus to a target cell within a host animal, comprising a complex of a cell-targeting ligand, a liposome and said virus.

2. (withdrawn) The vector according to claim 1, wherein said virus comprises a therapeutic nucleic acid.

3. (withdrawn) The vector according to claim 1, wherein said virus is an adenovirus or a retrovirus.

4. (withdrawn) The vector according to claim 1 wherein said virus is a recombinant virus.

5. (withdrawn) The vector according to claim 1, wherein the vector encodes (a) a protein or (b) an antisense oligonucleotide.

6. (withdrawn) The vector according to claim 2, wherein the nucleic acid encodes wild-type p53.

7. (withdrawn) The vector according to claim 4, wherein the recombinant virus encodes wild-type p53.

8. (withdrawn) The vector according to claim 1, wherein the cell-targeting ligand is a tumor cell targeting ligand.

9. (withdrawn) The vector according to claim 1, wherein the cell-targeting ligand is folate or transferrin.

10. (withdrawn) The vector according to claim 9, wherein the cell-targeting ligand is folate.

11. (withdrawn) The vector according to claim 9, wherein the cell-targeting ligand is transferrin.

12. (withdrawn) The vector according to claim 1, wherein the liposome is a cationic liposome comprising a cationic lipid and a neutral or helper lipid.

13. (currently amended) A vector for the systemic delivery of a [therapeutic or] diagnostic or anti-tumor agent to a target cell within a host animal, comprising a complex of a cell-targeting ligand, a cationic liposome comprising a cationic lipid selected from dioleoyltrimethylammonium-propane (DOTAP) or dimethyl dioctadecylammonium bromide (DDAB) and [a] neutral or helper lipid dioleoylphosphatidylethanolamine (DOPE), and said diagnostic or anti-tumor agent, wherein the vector has a mean diameter of less than about 100 nm and the ligand is bound directly to the liposome.

14. (original) The vector according to claim 13 having a mean diameter of about 30 to 75 nm.

15. (original) The vector according to claim 13 having a mean diameter of about 50 nm.

16. (original) The vector according to claim 13 wherein said agent is a nucleic acid.

17. (original) The vector according to claim 13 wherein said agent encodes (a) a protein or a (b) an antisense oligonucleotide.

18. (original) The vector according to claim 13 wherein said agent is a nucleic acid encoding wild-type p53.

19. (original) The vector according to claim 13 wherein said ligand is a tumor cell targeting ligand.

20. (original) The vector according to claim 13 wherein said ligand is folate or transferrin.

21. (original) The vector according to claim 13 wherein said ligand is folate.

22. (original) The vector according to claim 13 wherein said ligand is transferrin.

23. (canceled)

24. (original) The vector according to claim 16 wherein said liposome and said nucleic acid are present at a ratio ranging from 0.1-50 nanomoles liposome per 1.0 µg nucleic acid.

25. (original) The vector according to claim 24 wherein said ratio ranges from 1.0-24 nanomole liposome per 1.0 µg nucleic acid.

26. (original) The vector according to claim 24 wherein said ratio ranges from 6-16 nanomoles liposome per 1.0 µg nucleic acid.

27. (original) The vector according to claim 13 wherein said vector has an acentric structure.

28. (original) The vector according to claim 27 wherein said vector has a solid core.

29. (withdrawn) A vector for delivering *in vivo* a therapeutically effective nucleic acid molecule to a tumor-bearing animal, the vector consisting essentially of a complex of a cell-targeting ligand selected from the group consisting of folate and transferrin, a cationic liposome and a nucleic acid molecule, wherein said vector comprises a virus.

30. (withdrawn) The vector of claim 30 wherein said nucleic acid molecule encodes wild type p53.

31. (currently amended) A vector for delivering *in vivo* a therapeutically effective nucleic acid molecule to a tumor-bearing animal, the vector consisting essentially of a complex of a cell-targeting ligand selected from the group consisting of folate and transferrin, a cationic liposome comprising a cationic lipid <u>selected from DOTAP or DDAB</u> and [a] neutral or helper lipid <u>DOPE</u>, and a nucleic acid molecule, wherein said vector has a mean

diameter of less than about 100 nm and the folate or transferrin ligand is bound directly to said liposome.

32. (original) The vector of claim 31 wherein said nucleic acid molecule encodes wild type p53.

33. (original) The vector of claim 31 wherein said liposome and said nucleic acid molecule are in a ratio of 0.1-50 nanomole liposome per 1.0 µg nucleic acid.

34. (original) The vector of claim 31 wherein said liposome and said nucleic acid molecule are in a ratio of 1.0-24 nanomole liposome per 1.0 µg nucleic acid.

35. (original) The vector of claim 31 wherein said liposome and said nucleic acid molecule are in a ratio of 6-16 nanomole liposome per 1.0 µg nucleic acid.

36. (original) The vector of claim 31 wherein said vector has an acentric structure.

37. (original) The vector of claim 36 wherein said vector has a solid core.

38. (previously presented) A pharmaceutical composition comprising a vector according to claim 31 in a pharmaceutically acceptable carrier.

39. (withdrawn) A method for providing a therapeutic agent to an animal in need thereof, comprising administering to said animal a therapeutically effective amount of a complex comprising

a cell-targeting ligand, a cationic liposome and said therapeutic agent, wherein said vector comprises a virus.

40. (currently amended) A method for systemically providing a therapeutic anti-tumor agent to an animal in need thereof, comprising systemically administering to said animal a therapeutically effective amount of a complex comprising a cell-targeting ligand, a cationic liposome comprising a cationic lipid selected from DOTAP or DDAB and [a] neutral or helper lipid DOPE, and said therapeutic anti-tumor agent, wherein said vector has a mean diameter of less than about 100 nm and said ligand is bound directly to said liposome.

41. (original) The method of claim 40 wherein said agent is a nucleic acid.

42. (original) The method of claim 41 wherein said liposome and said nucleic acid are present at a ratio ranging from 0.1-50 nanomole liposome per 1.0 µg nucleic acid.

43. (original) The method of claim 41 wherein said liposome and said nucleic acid are present at a ratio ranging from 1-24 nanomole liposome per 1.0 µg nucleic acid.

44. (original) The method of claim 41 wherein said liposome and said nucleic acid are present at a ratio ranging from 6-16 nanomole liposome per 1.0 µg nucleic acid.

45. (original) The method of claim 40 wherein said complex has an acentric structure.

46. (original) The method of claim 45 wherein said complex has a solid core.

47. (canceled)

48. (previously presented) The method according to claim 40, wherein said vector is administered intravenously.

49. (currently amended) The method according to claim 40, wherein the cell-targeting ligand is folate or transferrin, and the therapeutic anti-tumor agent is a nucleic acid encoding wild-type p53.

50. (previously presented) The method according to claim 40 wherein the vector is administered in a pharmaceutically acceptable composition comprising a pharmaceutically acceptable vehicle.

51. (withdrawn) A therapeutic method for the treatment or amelioration of cancer in a warm blooded animal, comprising administering to said animal a complex comprising a cancer cell targeting ligand, a liposome and a therapeutic nucleic acid, wherein said complex comprises a virus.

52. (currently amended) A therapeutic method for the treatment or amelioration of cancer in a warm blooded animal,

comprising administering to said animal a complex comprising a cancer cell targeting ligand, a cationic liposome comprising a cationic lipid selected from DOTAP or DDAB and [a] neutral or helper lipid DOPE, and a therapeutic nucleic acid, wherein said complex has a mean diameter of less than about 100 nm and the ligand is bound directly to the liposome.

53. (original) The method of claim 52 wherein said liposome and said nucleic acid are present at a ratio ranging from 0.1-50 nanomole liposome per 1.0 µg nucleic acid.

54. (original) The method of claim 53 wherein said liposome and said nucleic acid are present at a ratio ranging from 1-24 nanomole liposome per 1.0 µg nucleic acid.

55. (original) The method of claim 53 wherein said liposome and said nucleic acid are present at a ratio ranging from 6-16 nanomole liposome per 1.0 µg nucleic acid.

56. (original) The method of claim 52 wherein said complex has an acentric structure.

57. (original) The method of claim 56 wherein said complex has a solid core.

58. (previously presented) The therapeutic method according to claim 52 wherein said complex is comprised of a cell-targeting ligand selected from the group consisting of

folate and transferrin, a cationic liposome and a nucleic acid encoding wild-type p53.

59. (original) The therapeutic method according to claim 58 wherein said complex is systemically administered to a cancer-bearing warm blooded animal.

60. (original) The therapeutic method according to claim 58, wherein said complex is intravenously administered to a cancer-bearing warm blooded animal.

61. (original) The therapeutic method according to claim 58, wherein said complex is intratumorally administered to a cancer-bearing warm blooded animal.

62. (original) The therapeutic method according to claim 58, further comprising administering an anti-cancer chemotherapeutic agent or an anti-cancer radiotherapy to said animal.

63. (currently amended) A method for preparing complexes smaller than 100 nm in diameter wherein said complexes comprise a cationic liposome comprising a cationic lipid and a neutral or helper lipid, a ligand and a nucleic acid, said method comprising the steps of:

a) mixing said ligand with said cationic liposome to form a cationic liposome:ligand complex; and

b) mixing said cationic liposome:ligand complex and said nucleic acid at a ratio of from 0.1-50 nanomoles liposome per 1.0 µg nucleic acid to form a cationic liposome:ligand:nucleic acid complex;

wherein said cationic lipid comprises dioleoyltrimethylammonium-propane (DOTAP) or dimethyl dioctadecylammonium bromide (DDAB) and said neutral or helper lipid comprises dioleoylphosphatidylethanolamine (DOPE) [or cholesterol].

64. (original) The method of claim 63 wherein said ratio is from 1-24 nanomoles liposome per 1.0 µg nucleic acid.

65. (original) The method of claim 63 wherein said ratio is from 6-16 nanomoles liposome per 1.0 µg nucleic acid.

66-67. (canceled)

68. (original) The method of claim 63 wherein said ligand is folate or transferrin.

69. (previously presented) The method of claim 63 wherein said liposome:ligand complex of step (a) is incubated for 5-15 minutes before performing step (b).

70-79. (canceled)

80. (currently amended) The method of claim 52, wherein said cancer comprises breast cancer, prostate cancer, head and neck cancer, ovarian cancer, pancreatic cancer, colon cancer,

glioblastoma, cervical cancer, lung cancer, gastric cancer, liposarcoma, melanoma [and] or choriocarcinoma.

81. (currently amended) The method of claim 52, wherein said cancer comprises breast cancer, prostate cancer, head and neck cancer, [and] or pancreatic cancer.

82. (currently amended) The method of claim 81, wherein said ligand comprises transferrin or folate[,] and said therapeutic nucleic acid encodes wt p53 [and said cationic liposome comprises a cationic lipid comprising DOTAP or DDAB and said neutral lipid comprises DOPE or cholesterol].

83. (previously presented) The method of claim 63, which further comprises combining said complex with an aqueous solution of sucrose or dextrose.

84. (new) The vector of claim 13, wherein said cationic lipid and said neutral or helper lipid are present at a ratio of 1:(0.5-3) (molar ratio).

85. (new) The vector of claim 22, wherein said nucleic acid, lipids and ligand are present in a ratio of 1 µg:(0.1-50 nmol):(0.1-100 µg).

86. (new) The vector of claim 22, wherein said nucleic acid, lipids and ligand are present in a ratio of 1 µg:(5-24 nmol):(6-36 µg).